McCracken, R.J. 1993. Evangelists, Scholars, Historians, Lab Types, Computer Buffs and Augur Pullers in the Soil Survey. Soil Survey Horizons 34:61.71

Sources

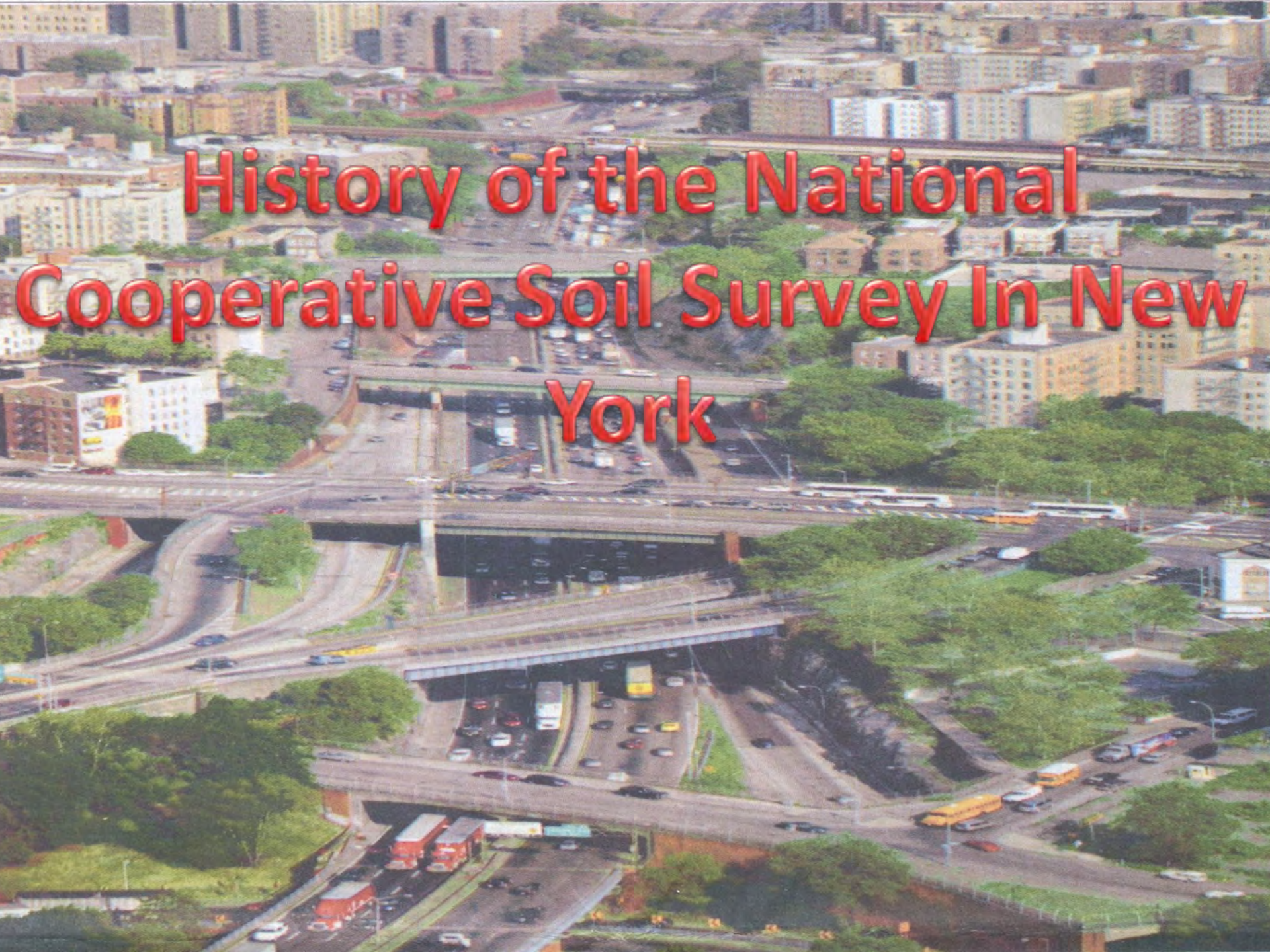
Cline, MG. 1982. Agronomy at Cornell, 1868 – 1980. Cornell Agronomy Mimeo No. 82-16. Cornell University, Ithaca, New York

Goddard, TM. An Introduction to the Soil Survey Program in New York, 1901 to 1954. Unpublished paper (subsequently he presented a derivative of this larger work to a SSSAP conference.

Gardner, DR. 1998. The National Cooperative Soil Survey of the United States.

Published Soil Surveys

Personal Communication



History of the National Cooperative Soil Survey In New York

The Beginning of the Beginning

A .Eaton and T. R. Beck . 1820. A Geological Survey of Albany County. Agricultural Society, Albany New York

"…..All soils, excepting what proceeds from decomposed animal and vegetable matter, are composed of the broken fragments of disintegrated rock. From this fact it is natural to infer that the soil of any district might be known by the rocks out of which it is formed." Amos Eaton, 1818. (Gardner, 1998)

The Beginning

Westfield Area 1901
Lyons Area 1902
Big Flats Area 1902
Vergennes Area 1904
Babylon Area 1904
Hempstead Area 1904
Syracuse 1905
Auburn 1905
Binghampton 1906

Above: Soil survey practice for Soils 3, 1907. Left to right: Craig, Goldhaar, Lounsbury, Hayden, Dragoshinoff, and Shepard.

Professor Fippin asserted that while a field soil man should be able to recognize geological features and changes in such in the field, yet the soil that he identifies should be defined in terms of soil characterizes instead of the parent rock. (Gardner, 1998)

U. S. DEPARTMENT OF AGRICULTURE,

BUREAU OF SOILS—MILTON WHITNEY, Chief.

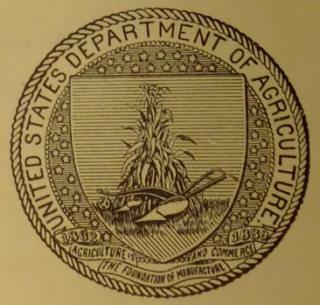
IN COOPERATION WITH CORNELL COLLEGE OF AGRICULTURE, L. H. BAILEY, DEAN.

SOIL SURVEY OF TOMPKINS COUNTY, NEW YORK.

BY

JAY A. BONSTEEL, ELMER O. FIPPIN,
AND WILLIAM T. CARTER, JR.

[Advance Sheets—Field Operations of the Bureau of Soils, 1905.]



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1906.

Then Bonesteel goes to Cornell and sets up Soil Survey Program.

Four soil series: Miami, Vergennes, Dunkirk, and Wabash.

16 soil types, including one undifferentiated wetland unit called meadow land.

Seems to follow landforms on topographic base map.

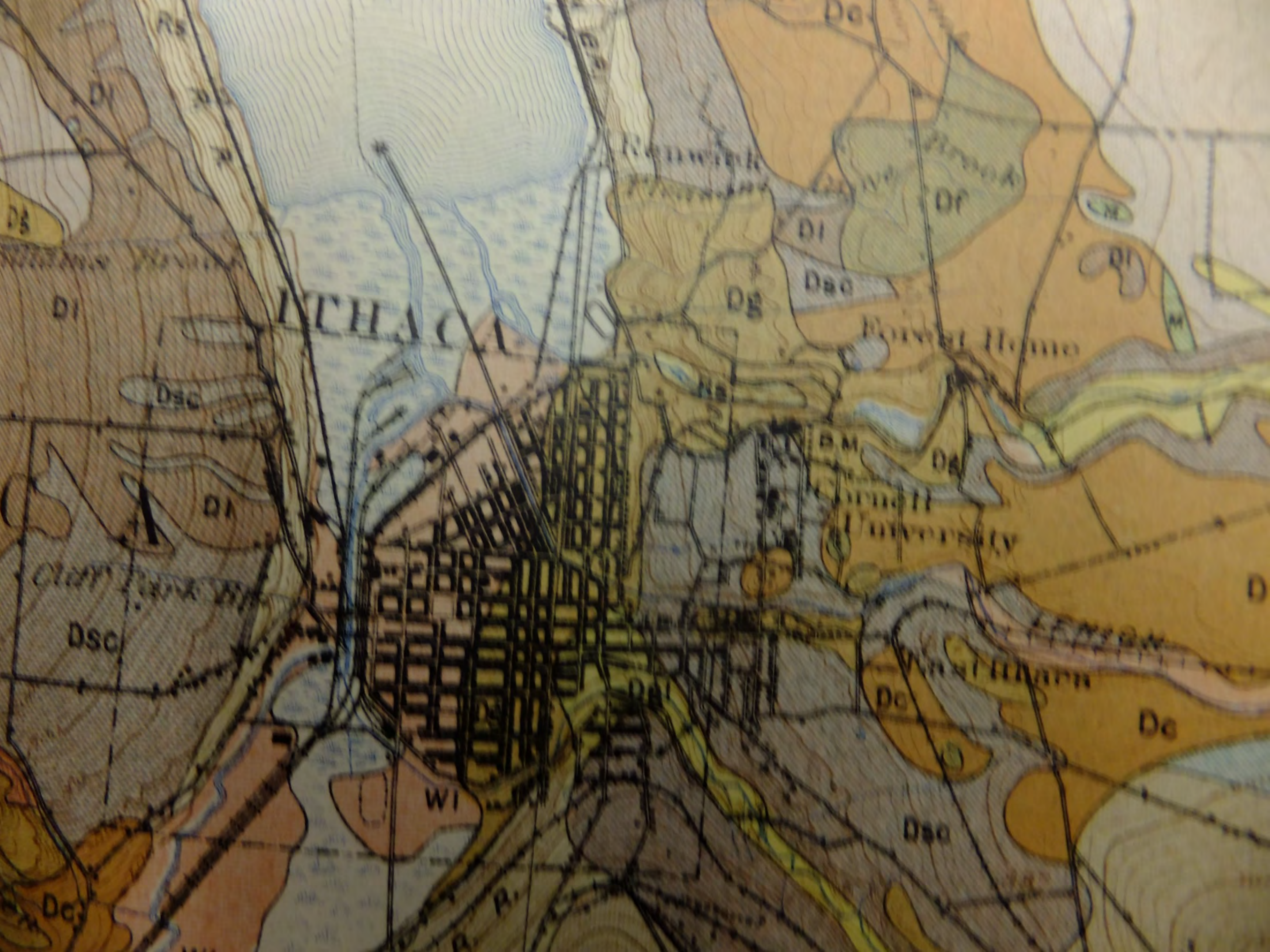
U.S. DEPT OF AGRICULTURE
BUREAU OF SOILS

SOIL MAP
NEW YORK
TOMPKINS COUNTY SHEET

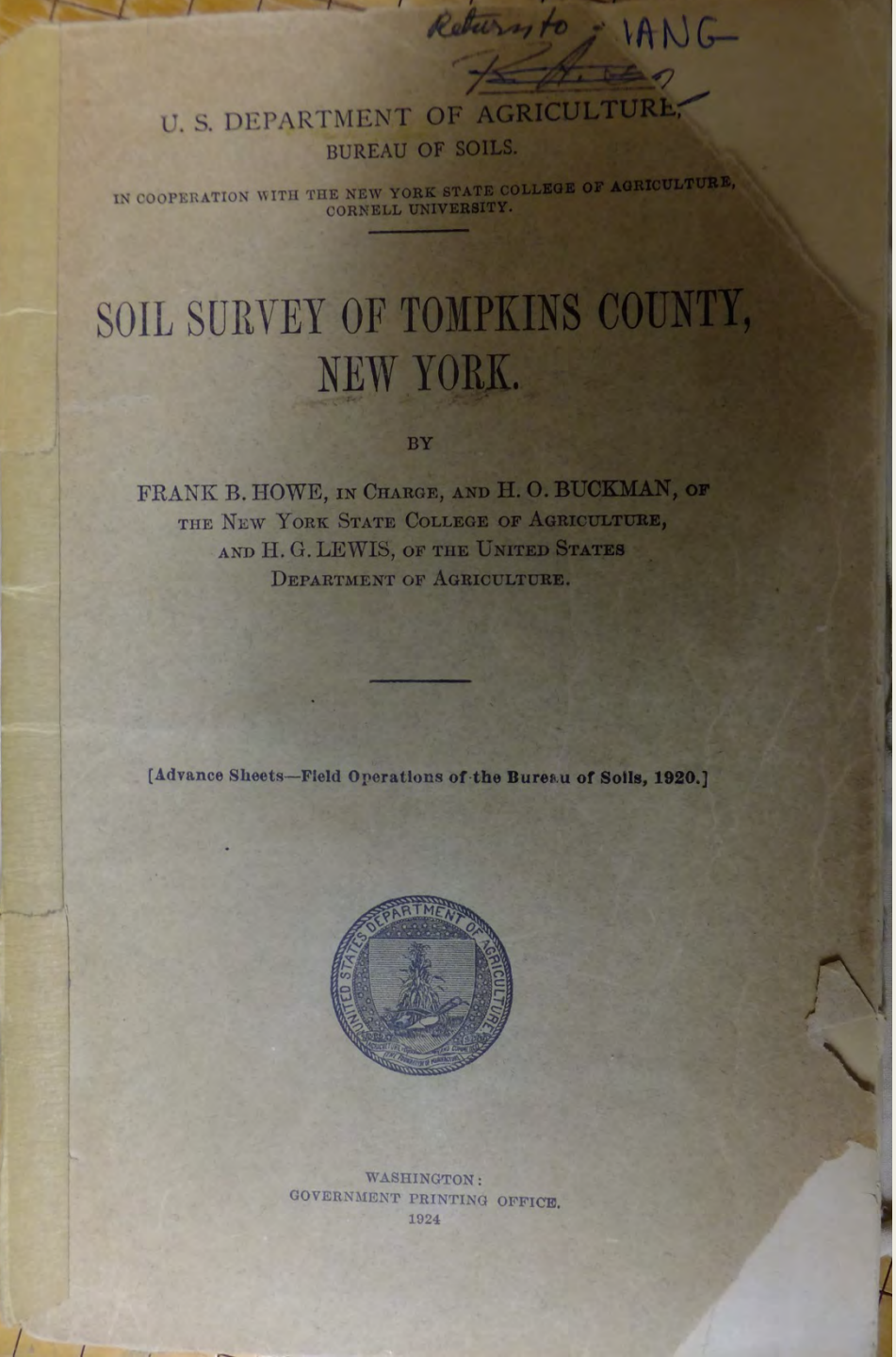
Soils surveyed by Jay A. Bonsteel, Elmer O. Fippin and William T. Carter Jr. 1905

BASE MAP FROM U.S. GEOLOGICAL SURVEY SHEETS

Field Operations Bureau of Soils 1905



ITHACA
Dl
Dsc
Dg
Df
DM
Forest Home
Dc
Wl



Return to IANG

U. S. DEPARTMENT OF AGRICULTURE.
BUREAU OF SOILS.

IN COOPERATION WITH THE NEW YORK STATE COLLEGE OF AGRICULTURE, CORNELL UNIVERSITY.

SOIL SURVEY OF TOMPKINS COUNTY, NEW YORK.

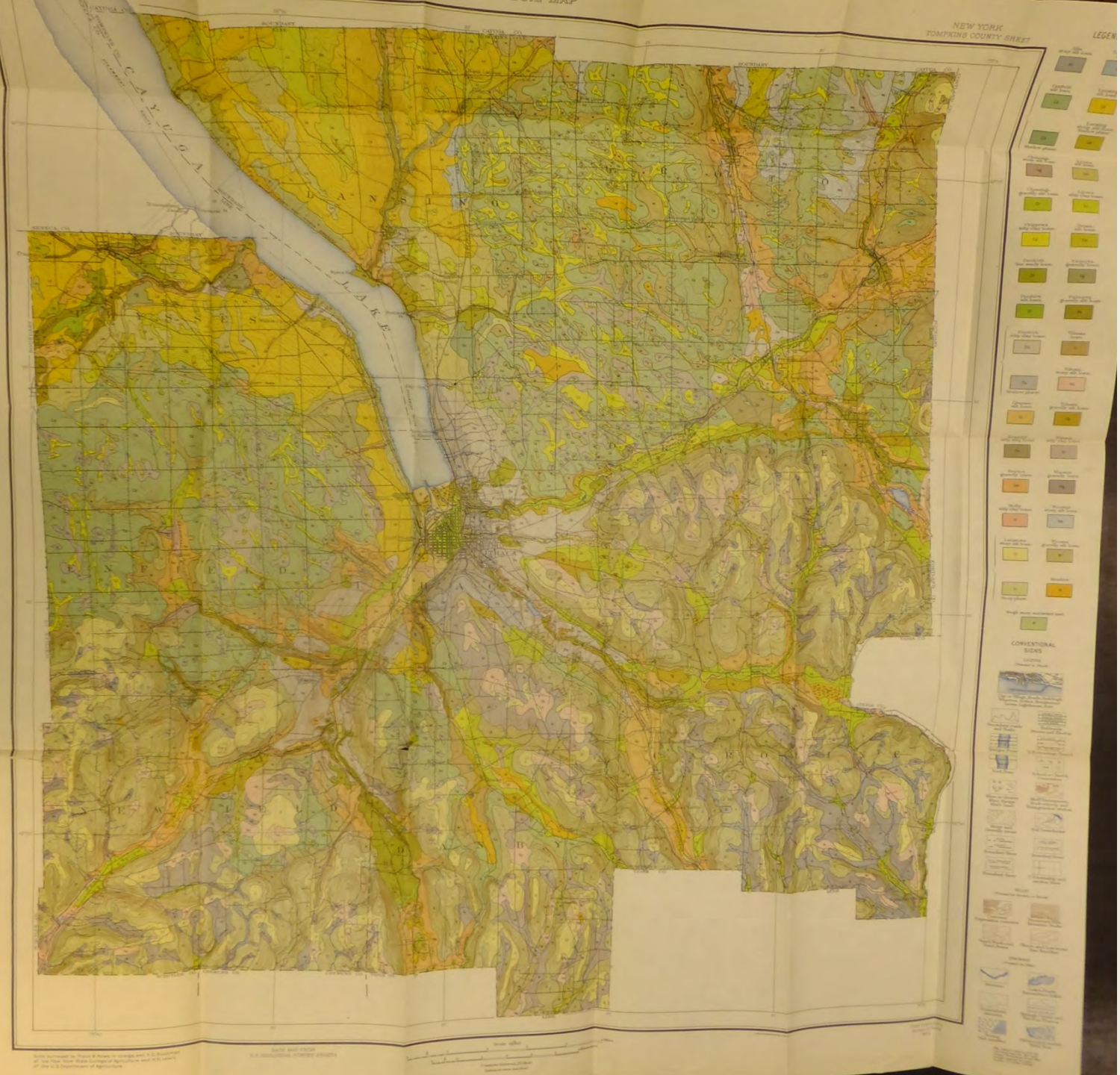
BY

FRANK B. HOWE, IN CHARGE, AND H. O. BUCKMAN, OF THE NEW YORK STATE COLLEGE OF AGRICULTURE, AND H. G. LEWIS, OF THE UNITED STATES DEPARTMENT OF AGRICULTURE.

[Advance Sheets—Field Operations of the Bureau of Soils, 1920.]

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1924

16 soil series, 32 soil types, including meadow land


NEW YORK
TOMPKINS COUNTY SHEET
CONVENTIONAL SIGNS

1913 Soil Survey Inspectors, Onieda Co. Left to Right: CF Marbut, Chief, TD Rice, WE Mclenden


1916
7 Paul Work
17 EO Fippin
18 TL Lyon
20 HO Buckman

Baur, Buckman, 1931

"*In New York and in other states having strong soil survey programs the representatives of the experimental station refused to approve the work plans of utilitarian soil surveys unless they were modified to provide reasonable correlation of mapping units in the national system. With each new survey initiated by the SCS from 1942 to 1954 the Department of Agronomy was visited by a contingent of three to seven SCS Administrators to approve a utilitarian legend. These meetings were not pleasant*."
Marlin Cline in "Agronomy at Cornell."


Milt French
1950's Photo
Ned Giddings
Mary Baltz

Rice Photo, about 1956


OUT OF THE WAY, YOU SWINE!
A SOIL SCIENTIST IS COMING!

Mary Baltz, 1940's and 1950's. The first female soil scientist in the United States

Cline's Soil Classification Class 1959. Top Row: Hutton, Fedak, Hulbert, Rice. Second Row: Work, Landry, McDowel. Front: Baltz, Higgins

Remembrance for Marlin G. Cline

Bob Grossman

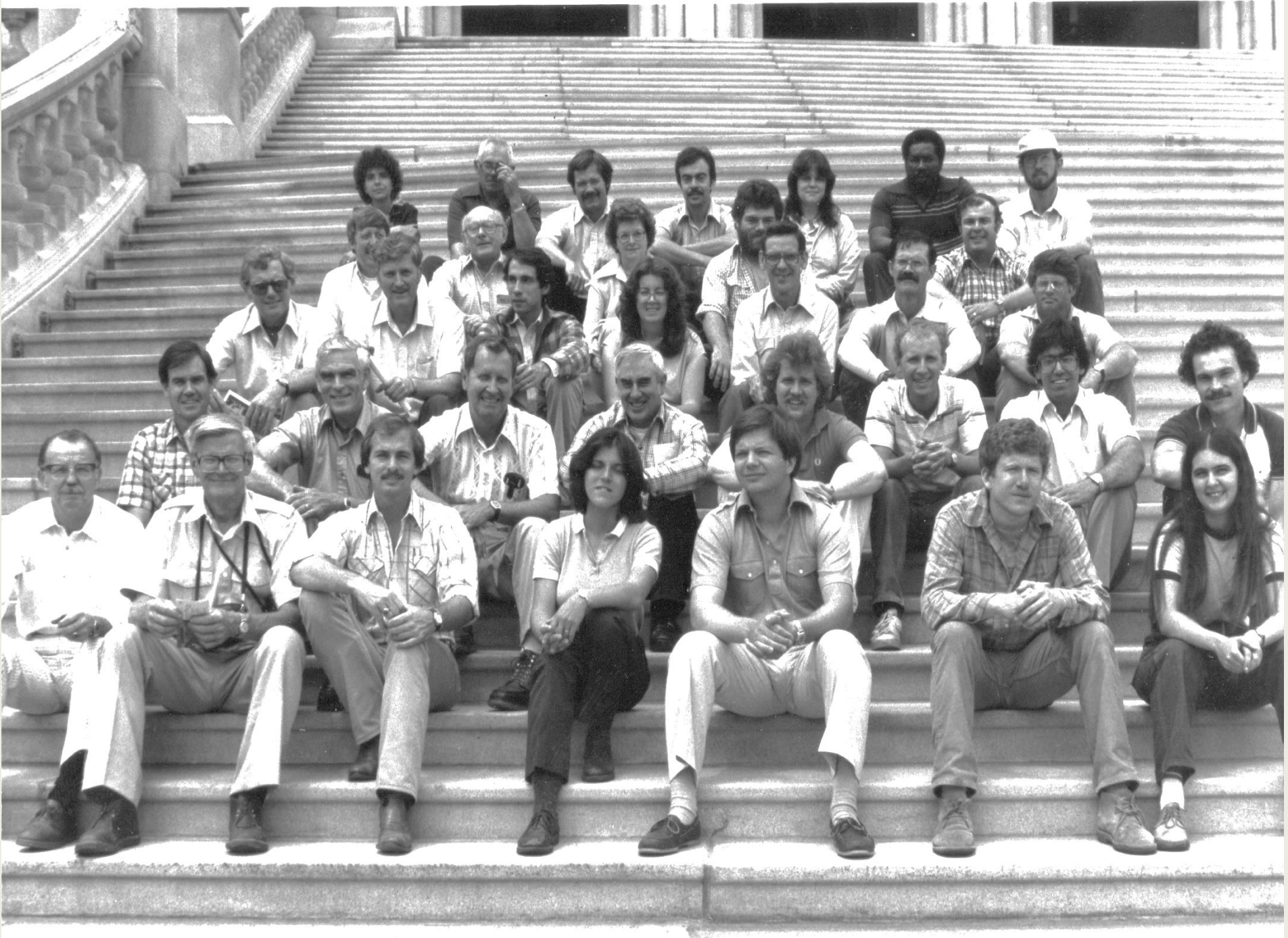
Dr. Marlin G. Cline, Emeritus Professor Cornell University, died January 9, 2009, at the age of ninety-nine. From 1950 to 1970 Dr. Cline was a very important bridge between the academic study of soil genesis, morphology, and classification and the Federal soil survey program. It was during that period the current Federal system of soil taxonomy and related interpretations was largely established.

Marlin Cline was born in Bertha, MN on December 31, 1909. His father was a pioneer in the area. He grew up on a small dairy farm and received his early education in a one- room school. He attended high school at Bertha, graduating at age 15 as the class salutatorian. He then worked on the family farm for 6 years before entering North Dakota Agricultural College (now known as North Dakota State University) in 1931, graduating in 1935. Immediately afterward, he was employed by the North Dakota Experiment Station and the USDA jointly, doing soil mapping. He was soon transferred to Hawaii, followed by an assignment in Tennessee as a member of the soil survey connected with the Tennessee Valley Authority. Just before leaving for the Hawaiian assignment, he and Agnes Israelson, from Christine, ND, were married. Marlin entered graduate school at Cornell University in 1938 with a Dennison Fellowship; the stipend was $750. He received his Ph.D. in 1942 working under Dr. Richard Bradfield. (Dr. Bradfield was the first president of the Soil Science Society of America.) Cline became an instructor at Cornell, reaching full professorship in several years. During World War II,

Marlin received honorary doctorate degrees from North Dakota State University and Trinity College, Dublin Ireland, and he received The N York State Farmers award. He is a fellow of both the American Society Agronomy and the Soil Science Society of America.

Marlin published two papers in the 1940s that are very noteworthy. Th introduction of Cline (1944) follows:

> Although sampling error is commonly much greater than analytical error for soils, research upon which sound sampling procedure could be based is very limited. As a result, instructions for sampling abound in statements that proper procedure depends upon the objective. True as such observations are, they contribute little to an investigator faced with a sampling problem. This article is presented in the hope that the general principles of sampling outlined may serve as guides in sampling for many objectives and



Frank Hutton, Mid-1980's photo.


ZINPRO


CAMP OVERLOOK


"To Make the Best Better"
to clearer thinking,
my HEART
to greater loyalty,
my HANDS
to larger service, and
my HEALTH
to better living, for
my club, my community,
my country,
and my world.
WELCOME
MOUNTAIN VIEW
BINGHAMTON

Urban Soil Survey

"It is a conceit of New York City---the concrete metropolis,
Batman's Gotham---to think that it is a place outside of nature, a place where humanity has completely triumphed over the forces of the natural world, where a person can do and be anything without limit or consequence. Yet this conceit is not unique to the city……." Abstracted from "Mannahatta" by Eric W. Sanderson. New York City---a soil survey? There ain 't no soil there.

Began in 1994. Conceived as a program, with Reconnaissance soil survey at 1:62500, a detailed soil survey at 1:12000, and highly detailed soil surveys in selected areas. And an institute for urban soils.

United States Department of Agriculture

Natural Resources Conservation Service

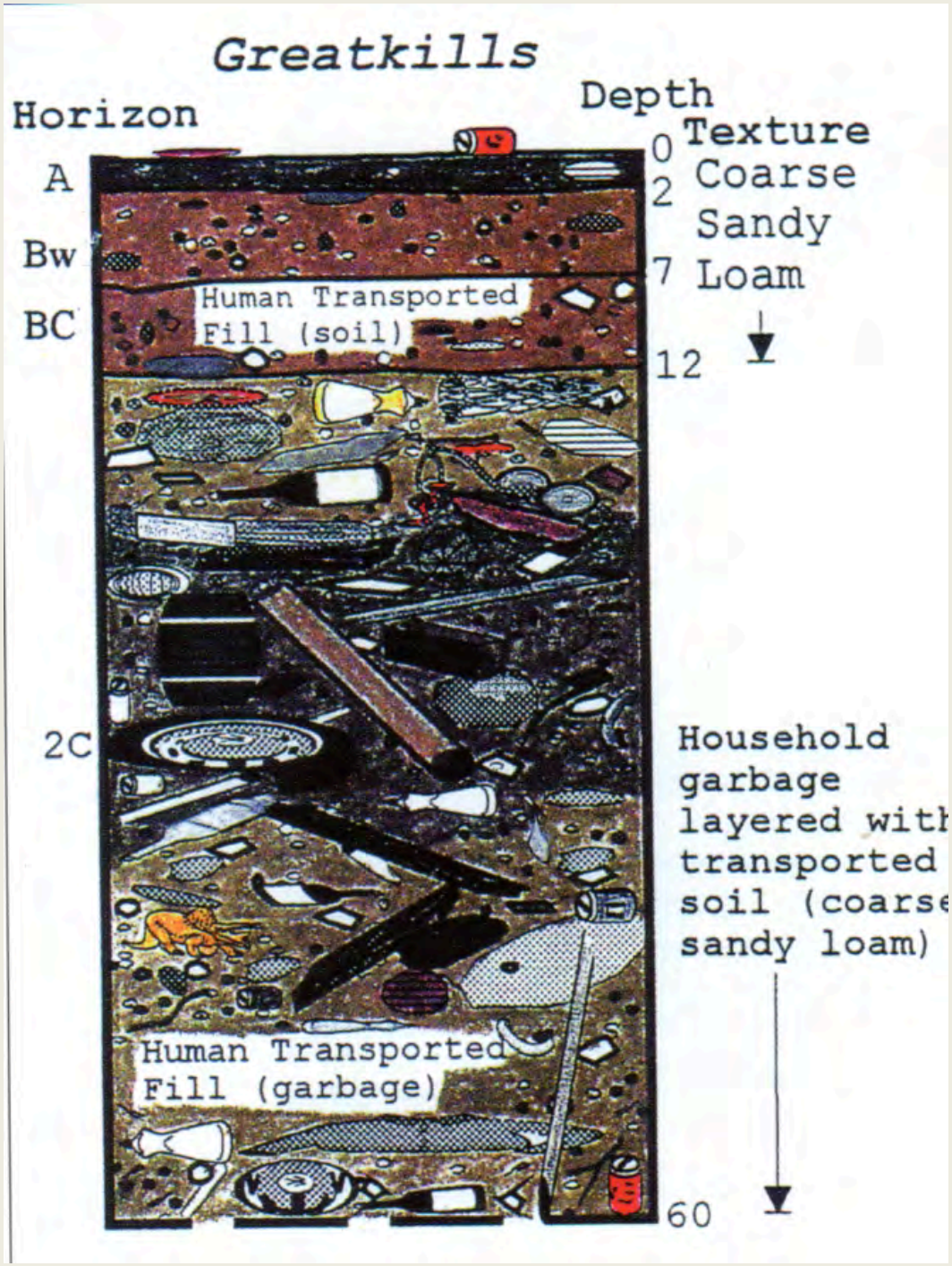
Soil Survey of

SOUTH LATOURETTE PARK, STATEN ISLAND, NEW YORK CITY, NY

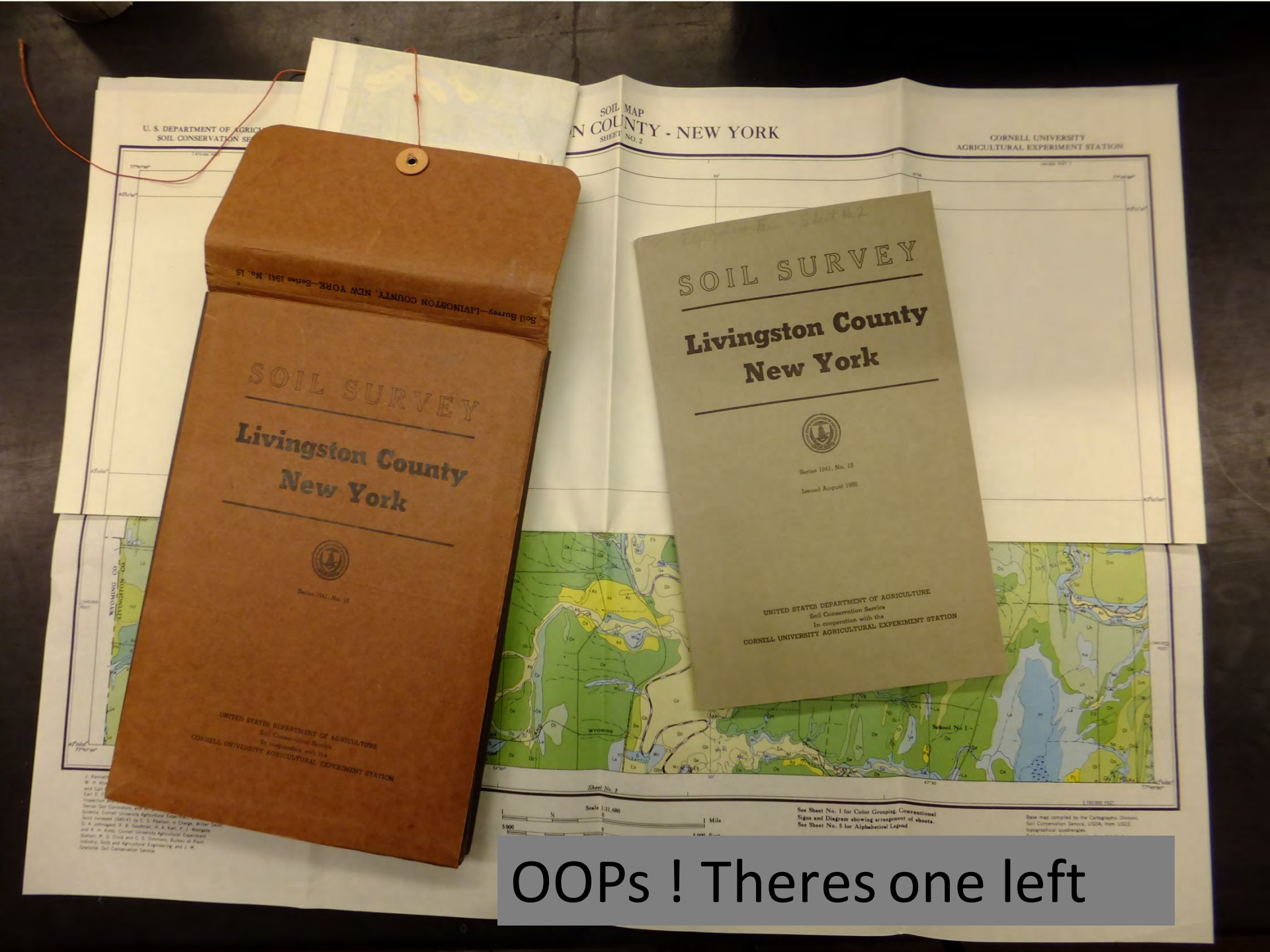
In cooperation between

Cornell University Agricultural Experiment Station and

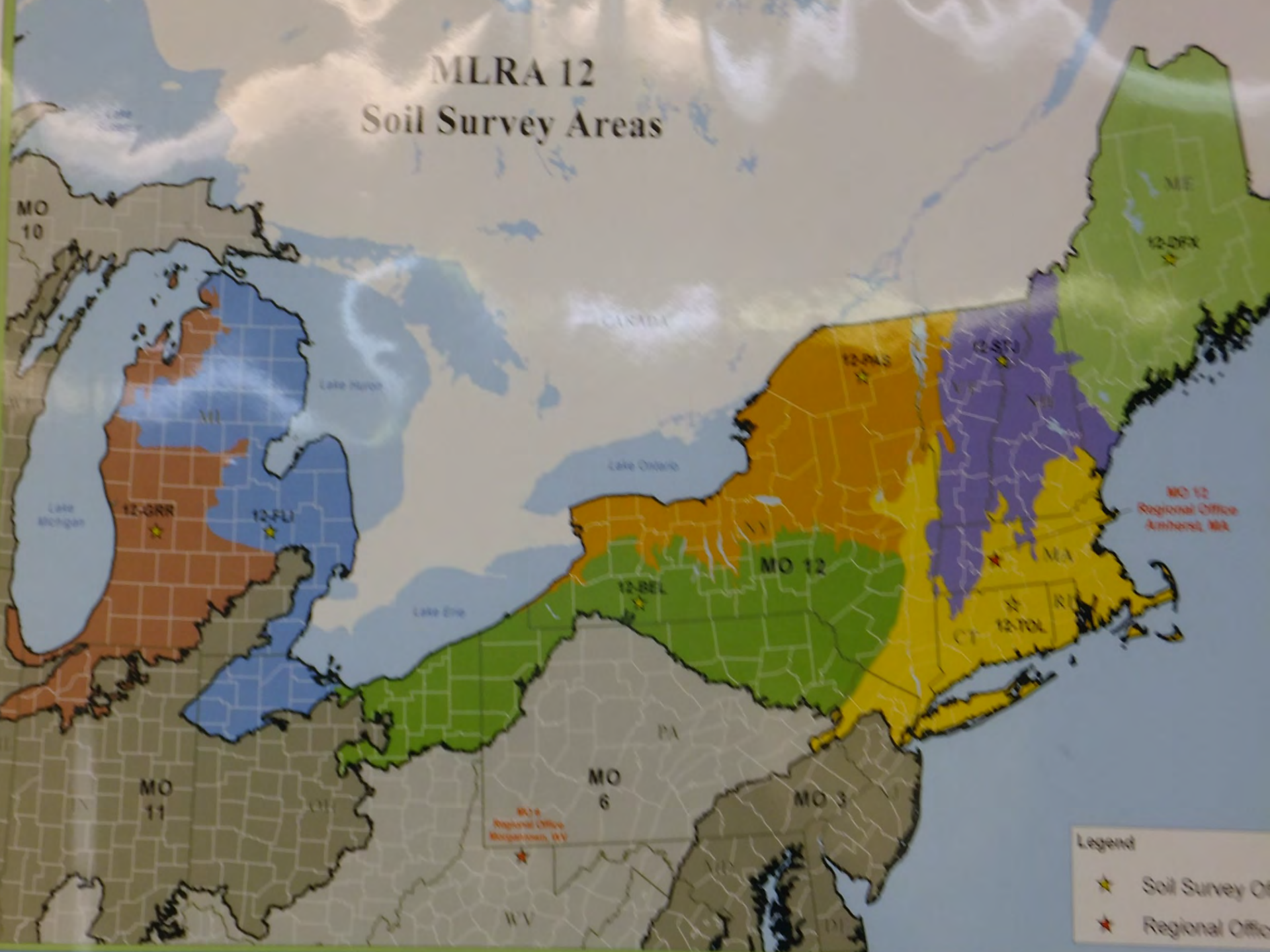
U.S. Dept. of Agriculture, Natural Resources Conservation Service


Greatkills
Horizon
Depth
Texture
A
Bw
BC
2C
0
2
7
12
60
Coarse
Sandy
Loam
Human Transported
Fill (soil)
Household
garbage
layered with
transported
soil (coarse
sandy loam)
Human Transported
Fill (garbage)

Congratulations for finishing the “Once Over.”



OOPs ! Theres one left


MLRA 12
Soil Survey Areas
MO 10
MI
12-GRR
12-FU
Lake Michigan
Lake Huron
Lake Ontario
Lake Erie
12-BAS
12-STO
ME
12-DFR
MO 12
12-BEL
MA
12-TOL
CT
RI
MO 11
MO 6
MO 3
PA
WV
MO 12 Regional Office Amherst, MA
Legend
Soil Survey Of
Regional Offic

***Egeszegere!* To the Free Mappers**

Heres to the free mappers!
who surveyed the soil across the land
who traversed swamps, climbed mountains and trod the plains
and who separated the silt and the clay from the sand

Salud! to the lab rats, computer hacks and bureaucrats
to the evangelist, academician and pioneer
to the correlators, editors, and interpretations staff
and to the others calling soil science a career

Prost! and L' Chayim! to the lone men and women
who baked in the midday sun
who persisted past the urge to quit
and who mapped till the mapping was done

Na Zdrorovial and cheers! to the landscapes
to the nunataks, cuestas and the moraines
to the kipukas, the eskers and the playas
and to the bolsons, sinkholes and the plains

A voitre sante! To the soil scientists
who trod the November chill
who braved landowners, dogs and bears
and who classified the pedons with skill

To toori kyaules snooky! To the critters that bit and stung
to the mosquitoes and flies and dastardly little fleas
to the gnats and the chiggers and the miserable little ticks
and to the snakes and the ants and the bees

Slainte! And skal! to the free mappers, the landscape painters
who clambered from knoll to knob in work that was really play
who pried into the niches, and the nooks and the crannies
and who separated the sand and the silt from the clay

Authors' Note: "Free mapper" is an extension of the term "free survey", which refers to a soil survey method that is "free" of ground control, the "placement, frequency, and type of field observations are controlled entirely by the discretion of the surveyor and the scientist's understanding of the soil-landscape relationship". Personally, I must confess to the most pleasant memories of free mapping, wandering over the landscapes, driven more by curiosity than any pre-set agenda. Free survey is becoming rarer as soil scientists become increasingly involved with update work, refreshing or enhancing soil maps that have already been made. In the future it is likely that the art of free survey will become forgotten as older soil scientists retire. With the exception of "To toori kyaules snooky" the italicized toasts in various languages generally mean "Here's to you". "To toori kyaules snooky", is Lithuanian, meaning "You have the snout of a pig".